

Requested Patent: WO0132974A2

Title:

COATING FOR TREATING SUBSTRATES FOR INK JET PRINTING INCLUDING
IMBIBING SOLUTION FOR ENHANCED IMAGE VISUALIZATION AND RETENTION,
METHOD FOR TREATING SAID SUBSTRATES, AND ARTICLES PRODUCED
THEREFROM ;

Abstracted Patent: WO0132974 ;

Publication Date: 2001-05-10 ;

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Application Number: WO2000US30000 20001031 ;

Priority Number(s): US19990163741P 19991104; US20000702093 20001030 ;

IPC Classification: D06M15/00 ;

Equivalents: AU1914101, CA2390190, EP1240383, JP2003514999T ;

ABSTRACT:

A method of producing a printed substrate so as to improve the adhesion, colorfastness and washfastness of either reactive or acid dye-based ink jet inks printed onto the substrate, the method includes the steps of providing a substrate, treating the substrate with an aqueous coating formulation comprising a cationic polymer or copolymer, a fabric softener, treating the substrate of step with an imbibing aqueous solution of either urea, and an ingredient selected from sodium bicarbonate, sodium carbonate or combinations thereof, or ammonium sulfate, drying the substrate, printing on the substrate with either an acid or reactive dye-based ink, depending on the coating and post treating the printed substrate.

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
10 May 2001 (10.05.2001)

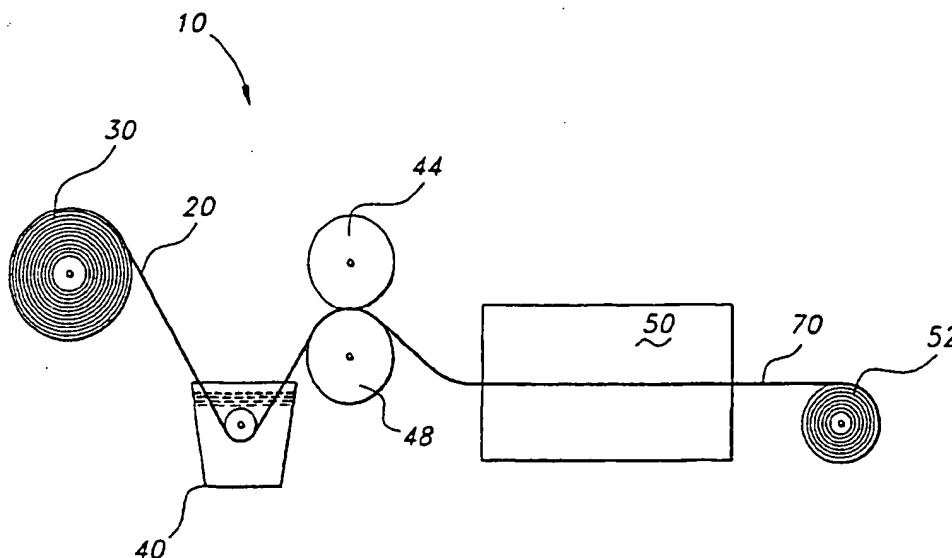
PCT

(10) International Publication Number
WO 01/32974 A2

- (51) International Patent Classification⁷: D06M 15/00 (74) Agents: FLACK, Steven, D. et al.; Kimberly-Clark Worldwide, Inc., 401 N. Lake Street, Neenah, WI 54956 (US).
- (21) International Application Number: PCT/US00/30000
- (22) International Filing Date: 31 October 2000 (31.10.2000)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/163,741 4 November 1999 (04.11.1999) US
09/702,093 30 October 2000 (30.10.2000) US
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- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- Published:
— Without international search report and to be republished upon receipt of that report.

[Continued on next page]

(54) Title: COATING FOR TREATING SUBSTRATES FOR INK JET PRINTING INCLUDING IMBIBING SOLUTION FOR ENHANCED IMAGE VISUALIZATION AND RETENTION, METHOD FOR TREATING SAID SUBSTRATES, AND ARTICLES PRODUCED THEREFROM

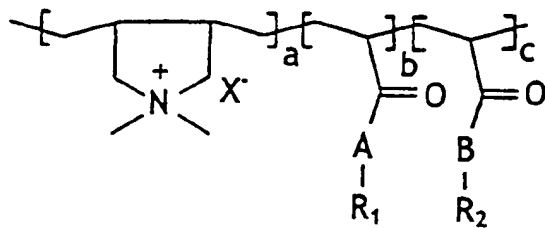
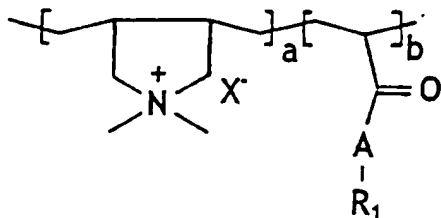
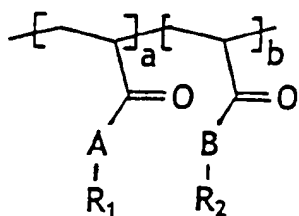
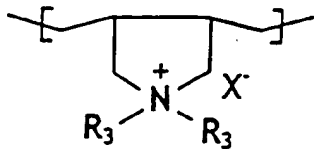
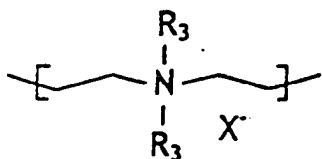


(57) Abstract: A method of producing a printed substrate so as to improve the adhesion, colorfastness and washfastness of either reactive or acid dye-based ink jet inks printed onto the substrate, the method includes the steps of providing a substrate, treating the substrate with an aqueous coating formulation comprising a cationic polymer or copolymer, a fabric softener, treating the substrate of step with an imbibing aqueous solution of either urea, and an ingredient selected from sodium bicarbonate, sodium carbonate or combinations thereof, or ammonium sulfate, drying the substrate, printing on the substrate with either an acid or reactive dye-based ink, depending on the coating and post treating the printed substrate.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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A, B = O, NH, N—

$\begin{array}{c} | \quad | \\ \text{---} \quad \text{---} \end{array}$

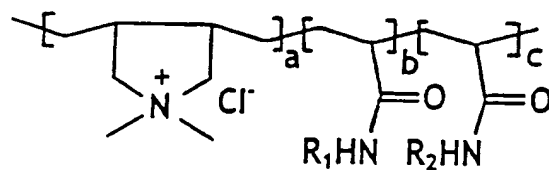
R_1, R_2 = quaternary ammonium, hydrophilic,
hydrophobic, reactive, or self condensing group

R_3 = H, alkyl, or alkoxy group

X = halogen or other counter ion

FIG. 1A

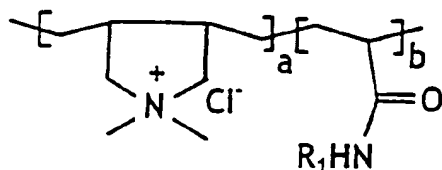
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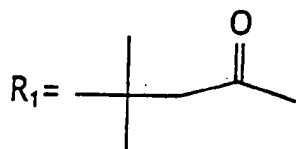
$a = 1$ to 99% , $b = (100-a)\%$, $c = 0$ to $100-(a+b)\%$

R_1, R_2 - as above

FIG. 1B



$a = 1$ to 99% , $b = (100-a)\%$



for CP 7091 RV, $a \sim 90$; $b \sim 10$

FIG. 1C

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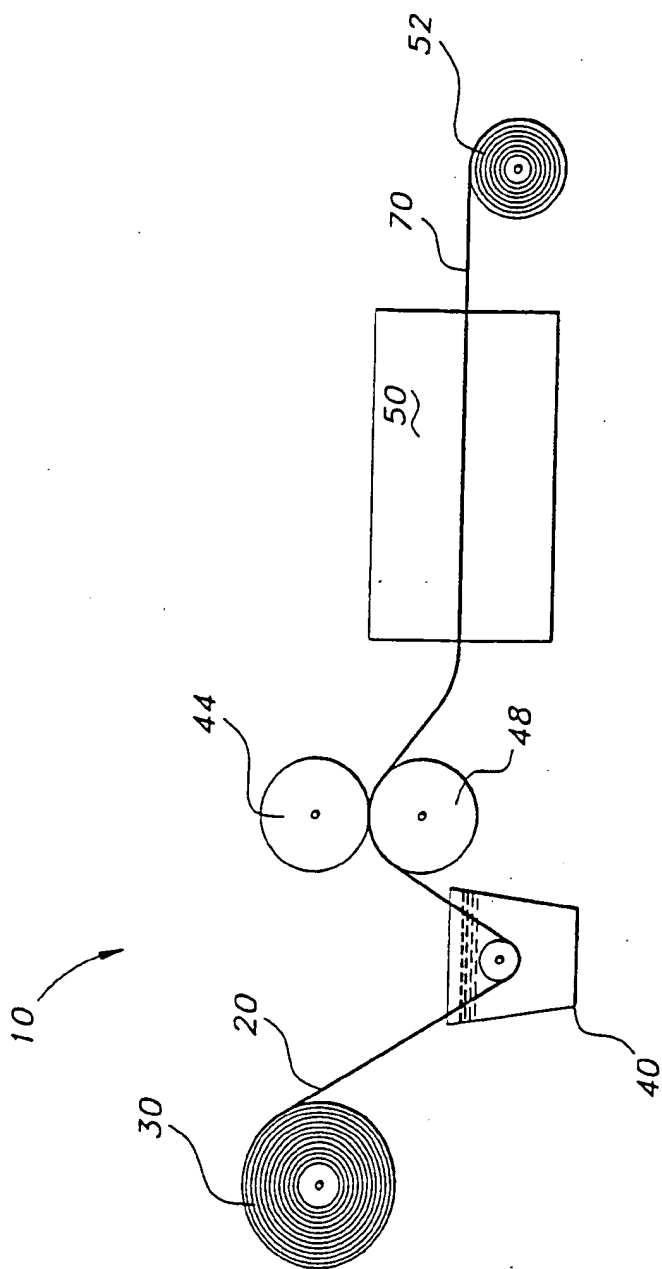


FIG. 2